

UNCLASSIFIED

UNIVERSAL DOCUMENTATION SYSTEM

INTERNATIONAL SPACE STATION ORBITAL VOL-I

PRD/PSP/OR/OD

UNCLASSIFIED

CLASSIFICATION UNCLASSIFIED

INTERNATIONAL SPACE STATION ORBITAL VOL-I
PROGRAM REQUIREMENTS DOCUMENT/PROGRAM SUPPORT PLAN/
OPERATIONS REQUIREMENT/OPERATIONS DIRECTIVE (PRD/PSP/OR/OD)
PROGRAM NUMBER: 30000

SECTION 1031 - INDEX

PUBLICATION DATE: 05/31/96 REVISION: 0000 RUN DATE: 01/12/09

=====

SECTION	TITLE
1000	ADMINISTRATIVE
1031	INDEX
1050	ABBREVIATIONS/ACRONYMS
1052	SPECIAL CODE DEFINITION
1100	PROGRAM DESCRIPTION
1405	TEST VEHICLE INSTRUMENTATION FREQUENCY SUMMARY
2000	TEST REQUIREMENTS/SUPPORT PLANS
2100	METRIC DATA
2200	TELEMETRY DATA
2300	COMMAND SYSTEMS
2700	COMMUNICATION
2710	AIR/GROUND VOICE COMMUNICATIONS
2730	VOICE NETWORK TRANSMISSION
2734	VIDEO/DATA NETWORK TRANSMISSION
2750	VOICE TERMINATIONS
2770	TELEPHONE
2800	VIDEO
3410	OTHER TECHNICAL SUPPORT - AIRCRAFT

CLASSIFICATION UNCLASSIFIED

INTERNATIONAL SPACE STATION ORBITAL VOL-I
PROGRAM REQUIREMENTS DOCUMENT/PROGRAM SUPPORT PLAN/
OPERATIONS REQUIREMENT/OPERATIONS DIRECTIVE (PRD/PSP/OR/OD)
PROGRAM NUMBER: 30000

SECTION 2100 - METRIC DATA

PUBLICATION DATE: 05/31/96 REVISION: 0000 RUN DATE: 01/12/09

```
=====
[PRD] DATABASE RECORD: 533540 REQUIREMENT STATUS: APPROVED
DOCUMENT ID: ISS VOL-I APPROVAL DATE: 10/29/08
INITIAL DATE: 08/23/96
ITEM NUMBER: EGT2GT DATE LAST CHANGED: 11/18/08
SECTION: 2100 TIME LAST CHANGED: 09:19:30

REQUESTER: ER GSFC JSC
TEST CODE: CORE
```

1. DESCRIPTION: TDRS STATE VECTORS

When required, the GSFC FDF shall provide the SSCC and BCC-HOSC (when activated) with Tracking and Data Relay Satellite (TDRS) state vectors for ISS-to-TDRS pointing computations and for Visiting Vehicles -to-TDRS pointing computations to the SSCC. TDRS state vectors for ATV and HTV support will be supplied by the SSCC to the ESA and NASDA gateways as required. The TDRS state vectors accuracy requirement is 200 meters, three sigma. State vector formats are specified in JSC/GSFC Operational Communications ICD for MCC Systems (JSC 11534, Vol.1, latest revision). Vectors will be transmitted between FDF and SSCC via ISSOnet.

SUPPLIER: GSFC AGENCY: GSFC/450.3 (G - GODDARD SPACE FLIGHT CENTER)
RESPONDER: ANTHONY WILLIAMS

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 11/17/08

SUPPLIER: JSC AGENCY: JSC/DD (JOHNSON SPACE CENTER)
RESPONDER: NACAIT

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 10/29/08

```
-----
[PRD] DATABASE RECORD: 551187 REQUIREMENT STATUS: APPROVED
DOCUMENT ID: ISS VOL-I APPROVAL DATE: 10/29/08
INITIAL DATE: 04/13/99
ITEM NUMBER: GT4G DATE LAST CHANGED: 11/18/08
SECTION: 2100 TIME LAST CHANGED: 09:20:15

REQUESTER: GSFC JSC
TEST CODE: CORE
```

1. DESCRIPTION: ISS STATE VECTORS

The JSC SSCC and BCC-HOSC (when activated) shall provide, as required

CLASSIFICATION UNCLASSIFIED

INTERNATIONAL SPACE STATION ORBITAL VOL-I
PROGRAM REQUIREMENTS DOCUMENT/PROGRAM SUPPORT PLAN/
OPERATIONS REQUIREMENT/OPERATIONS DIRECTIVE (PRD/PSP/OR/OD)
PROGRAM NUMBER: 30000

SECTION 2100 - METRIC DATA

PUBLICATION DATE: 05/31/96 REVISION: 0000 RUN DATE: 01/12/09

CONTINUED

[PRD] DATABASE RECORD: 551187
ITEM NUMBER: GT4G

ISS, ATV, HTV, and Soyuz acquisition data to the TDRS via GSFC FDF.
The ATV and HTV acquisition data shall be provided by the ATV and HTV
Control Centers, respectively, to the SSCC. State Vector formats are
specified in JSC/GSFC Operational Communications ICD for MCC Systems
(JSC 121534, Vol. 1, latest revision) Vectors will be transmitted
between FDF and SSCC via ISSOnet.

SUPPLIER: GSFC AGENCY: GSFC/450.3 (G - GODDARD SPACE FLIGHT CENTER)

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 11/17/08

[PRD] DATABASE RECORD:	551188	REQUIREMENT STATUS:	APPROVED
DOCUMENT ID:	ISS VOL-I	APPROVAL DATE:	03/27/07
		INITIAL DATE:	04/15/99
ITEM NUMBER:	GT5T	DATE LAST CHANGED:	11/26/07
SECTION:	2100	TIME LAST CHANGED:	14:31:47
REQUESTER:	GSFC	JSC	
TEST CODE:	CORE		

1. DESCRIPTION: PRE-LAUNCH, LAUNCH, EARTH ORBIT, and REENTRY PHASES

Timeline for trajectory information exchange as follows:

L-18 months to L-1 Month - After completion of each ATV Flight Design
cycle, ESA will provide MCC-H with the resulting ATV trajectory
analysis. MCC-H will forward the trajectory analysis results to
GSFC FDF.

L-1 months to L-1 day - As required, ESA will provide MCC-H with
detailed ATV trajectory data, including insertion vectors and
predicted post-maneuver vectors. MCC-H will forward this vector
data to GSFC FDF.

ESA and JAXA will provide the GSFC FDF (via MCC-H) with electronic
data defining the launch vehicle trajectory from launch through
spacecraft separation. Since this is a rendezvous, requiring inertial

CLASSIFICATION UNCLASSIFIED

INTERNATIONAL SPACE STATION ORBITAL VOL-I
PROGRAM REQUIREMENTS DOCUMENT/PROGRAM SUPPORT PLAN/
OPERATIONS REQUIREMENT/OPERATIONS DIRECTIVE (PRD/PSP/OR/OD)
PROGRAM NUMBER: 30000

SECTION 2100 - METRIC DATA

PUBLICATION DATE: 05/31/96 REVISION: 0000 RUN DATE: 01/12/09

=====
CONTINUED

[PRD] DATABASE RECORD: 551188
ITEM NUMBER: GT5T

place targeting, multiple trajectories may be required to define the trajectory across the launch window. ESA and JAXA will provide the GSFC FDF (via MCC-H) with electronic data defining the Visiting Vehicle trajectory from space separation to rendezvous with the ISS. Data is required by launch minus 90 days.

Both ascent and post spacecraft separation phases of the mission may be merged into one electronic trajectory file in a TBD format.

Trajectory data is required for pre-mission trajectory analysis and as a source for launch support state vectors. These launch support vectors are required for TDRSS pointing during the launch phase.

During the Orbit phase ESA and JAXA will provide the GSFC FDF with (via MCC-H) with updated electronic trajectory data for ATV and HTV in real-time to maintain TDRS pointing. Vectors should be formatted in accordance with the JSC/GSFC Operational Communications ICD for MCC System (JSC 11534, Vol. I, latest revision). GSFC FDF will provide (via MCC-H) ESA and JAXA with an orbit solution with 100 meters, 1 sigma.

During Re-entry phase ESA, JAXA and SSCC will provide the GSFC FDF with electronic data defining the Visiting Vehicle trajectory from undocking through re-entry. Predicted reentry vector will be supplied by ESA and JAXA (via MCC-H) eight (8) days prior to undocking. The Visiting Vehicle Control Center/SSCC will notify the GSFC FDF 48 hours prior to Visiting Vehicle undocking. Trajectory data is required no later than (NLT) 4 hours prior to the event. Vectors should be formatted in accordance with JSC/GSFC Operational Communications ICD for MCC System (JSC 11534, Vol. I, latest revision)

SUPPLIER: JSC AGENCY: JSC/DD (JOHNSON SPACE CENTER)

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 03/27/07
=====

CLASSIFICATION UNCLASSIFIED

INTERNATIONAL SPACE STATION ORBITAL VOL-I
PROGRAM REQUIREMENTS DOCUMENT/PROGRAM SUPPORT PLAN/
OPERATIONS REQUIREMENT/OPERATIONS DIRECTIVE (PRD/PSP/OR/OD)
PROGRAM NUMBER: 30000

SECTION 2734 - VIDEO/DATA NETWORK TRANSMISSION

PUBLICATION DATE: 05/31/96 REVISION: 0000 RUN DATE: 01/12/09
=====

[PRD] DATABASE RECORD: 601017	REQUIREMENT STATUS: APPROVED
DOCUMENT ID: ISS VOL-I	APPROVAL DATE: 10/30/08
	INITIAL DATE: 10/30/08
ITEM NUMBER: GT50GHKT	DATE LAST CHANGED: 11/18/08
SECTION: 2734	TIME LAST CHANGED: 09:32:34
REQUESTER: GSFC	JSC
TEST CODE: CORE	

1. DESCRIPTION: ISS OPERATIONAL NETWORK (ISSOnet)

ISSOnet (formally known as the FEPR network) is a Layer 3 ISS managed private routed network within the NISN provided Multi Protocol Label Switching (MPLS) Layer 2 infrastructure. Serial Conversion Processors (SCPs), located at WSC and KSC, provide Level-0 processing for the routing of the data Layer 2 network consists of:

- a. 9 Mbps between JSC/WSGT shall be provided.
- b. 9 Mbps between JSC/STGT shall be provided
- c. 6 Mbps between MSFC/WSGT shall be provided.
- d. 6 Mbps between MSFC/STGT shall be provided.
- e. 1 Mbps between STGT/GSFC shall be provided.
- f. 1 Mbps between WSGT/GSFC shall be provided.
- g. 1 Mbps between KSC/JSC shall be provided.
- h. A NISN Real-time Critical Service is required.
- i. The interface shall provide security appropriate for "Space Operations Information".
- j. The data transport delay shall not exceed 600 ms from center to center. The delay shall not vary.
- k. The maximum bit error rate shall be 10E-6.

The communications service shall be transparent to the WSC. (i.e., the data shall be presented by the communications equipment to the WSC in the same format as that presented by the centers to the communications. Any overhead added by the communications service shall be removed from the data prior to delivery to the WSC and shall require no additional processing or data handling capabilities on the part of the WSC. The data provided by the centers shall not be altered by the communications services).

SUPPLIER: GSFC AGENCY: GSFC/450.1 (GODDARD SPACE FLIGHT CENTER)

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 11/17/08

CLASSIFICATION UNCLASSIFIED

INTERNATIONAL SPACE STATION ORBITAL VOL-I
PROGRAM REQUIREMENTS DOCUMENT/PROGRAM SUPPORT PLAN/
OPERATIONS REQUIREMENT/OPERATIONS DIRECTIVE (PRD/PSP/OR/OD)
PROGRAM NUMBER: 30000

SECTION 2734 - VIDEO/DATA NETWORK TRANSMISSION

PUBLICATION DATE: 05/31/96 REVISION: 0000 RUN DATE: 01/12/09

CONTINUED

[PRD] DATABASE RECORD: 601017
ITEM NUMBER: GT50GHKT

SUPPLIER: MSFC AGENCY: MSFC/EO60 (MARSHALL SPACE FLIGHT CENTER)
RESPONDER: MIKE BLUM

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 11/14/08

SUPPLIER: KSC AGENCY: KSC/PH-B (KENNEDY SPACE CENTER)

SUPPLIER COMMITMENT: NOACK RESPONSE DATE: 10/30/08

SUPPLIER: JSC AGENCY: JSC/DD (JOHNSON SPACE CENTER)
RESPONDER: NACAIT

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 10/30/08

[PRD] DATABASE RECORD: 601040 REQUIREMENT STATUS: APPROVED
DOCUMENT ID: ISS VOL-I APPROVAL DATE: 10/31/08
INITIAL DATE: 10/31/08
ITEM NUMBER: GT53HT DATE LAST CHANGED: 11/14/08
SECTION: 2734 TIME LAST CHANGED: 10:45:33

REQUESTER: GSFC JSC
TEST CODE: BCC CORE

1. DESCRIPTION: BCC-HOSC AND GSFC FDF INTERFACE

Reference to the BCC-HOSC Level B requirements (JSC-63742), latest revision).

- a. The ISSOnet service is required to provide state vectors for trajectory service.

SUPPLIER: MSFC AGENCY: MSFC/EO60 (MARSHALL SPACE FLIGHT CENTER)
RESPONDER: MIKE BLUM

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 11/14/08

SUPPLIER: JSC AGENCY: JSC/DD (JOHNSON SPACE CENTER)
RESPONDER: NACAIT

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 10/31/08

CLASSIFICATION UNCLASSIFIED

INTERNATIONAL SPACE STATION ORBITAL VOL-I
PROGRAM REQUIREMENTS DOCUMENT/PROGRAM SUPPORT PLAN/
OPERATIONS REQUIREMENT/OPERATIONS DIRECTIVE (PRD/PSP/OR/OD)
PROGRAM NUMBER: 30000

SECTION 2734 - VIDEO/DATA NETWORK TRANSMISSION

PUBLICATION DATE: 05/31/96 REVISION: 0000 RUN DATE: 01/12/09

=====
CONTINUED

[PRD] DATABASE RECORD: 601040
ITEM NUMBER: GT53HT

CLASSIFICATION UNCLASSIFIED

INTERNATIONAL SPACE STATION ORBITAL VOL-I
PROGRAM REQUIREMENTS DOCUMENT/PROGRAM SUPPORT PLAN/
OPERATIONS REQUIREMENT/OPERATIONS DIRECTIVE (PRD/PSP/OR/OD)
PROGRAM NUMBER: 30000

SECTION 2750 - VOICE TERMINATIONS

PUBLICATION DATE: 05/31/96 REVISION: 0000 RUN DATE: 01/12/09

```
=====
[PRD] DATABASE RECORD:      556293      REQUIREMENT STATUS: APPROVED
DOCUMENT ID:                ISS VOL-I    APPROVAL DATE:      02/17/04
                                     INITIAL DATE:      07/18/00
ITEM NUMBER:                GTY8T        DATE LAST CHANGED:  09/28/07
SECTION:                    2750         TIME LAST CHANGED:  12:32:13

REQUESTER:                  GSFC          JSC          NASA HQ
SUBREQUESTER:               HQ
TEST CODE:                  CORE          FULL-TIME
```

1. DESCRIPTION: ISS OPS

RESPONSIBLE AGENCY: JSC

REF	CAP	TERMINATION LOCATION	NOTE
---	---	-----	----
G1	M	EXTEND TO GSFC	

SUPPLIER: JSC AGENCY: JSC/DD (JOHNSON SPACE CENTER)

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 02/17/04

```
-----
[PRD] DATABASE RECORD:      575458      REQUIREMENT STATUS: APPROVED
DOCUMENT ID:                ISS VOL-I    APPROVAL DATE:      02/17/04
                                     INITIAL DATE:
ITEM NUMBER:                GTY8.1G      DATE LAST CHANGED:  02/26/04
SECTION:                    2750         TIME LAST CHANGED:  15:09:34

REQUESTER:                  GSFC          JSC          NASA HQ
TEST CODE:                  CORE          FULL-TIME
```

1. DESCRIPTION: ISS OPS

RESPONSIBLE AGENCY: GSFC

REF	CAP	TERMINATION LOCATION	NOTE
---	---	-----	----
Y1	M	EXTEND TO HQ	1
G2	M	EXTEND TO GSFC/NIC	

CLASSIFICATION UNCLASSIFIED

INTERNATIONAL SPACE STATION ORBITAL VOL-I
 PROGRAM REQUIREMENTS DOCUMENT/PROGRAM SUPPORT PLAN/
 OPERATIONS REQUIREMENT/OPERATIONS DIRECTIVE (PRD/PSP/OR/OD)
 PROGRAM NUMBER: 30000

SECTION 2750 - VOICE TERMINATIONS

PUBLICATION DATE: 05/31/96 REVISION: 0000 RUN DATE: 01/12/09

CONTINUED

[PRD] DATABASE RECORD: 575458
 ITEM NUMBER: GTY8.1G

G3 M EXTEND TO WSC

NOTE: 1. Voice loop will be extended to the Action Center for HQ ISS staff.

SUPPLIER: GSFC AGENCY: GSFC/451 (GODDARD SPACE FLIGHT CENTER)

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 02/26/04

[PRD] DATABASE RECORD: 575457 REQUIREMENT STATUS: APPROVED
 DOCUMENT ID: ISS VOL-I APPROVAL DATE: 02/17/04
 INITIAL DATE:
 ITEM NUMBER: GTY10T DATE LAST CHANGED: 09/28/07
 SECTION: 2750 TIME LAST CHANGED: 12:32:13

REQUESTER: GSFC JSC NASA HQ
 TEST CODE: CORE FULL-TIME

1. DESCRIPTION: ISS FD

RESPONSIBLE AGENCY: JSC

REF	CAP	TERMINATION LOCATION	NOTE
G1	M	EXTEND TO GSFC	

SUPPLIER: JSC AGENCY: JSC/DD (JOHNSON SPACE CENTER)

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 02/17/04

[PRD] DATABASE RECORD: 575462 REQUIREMENT STATUS: APPROVED
 DOCUMENT ID: ISS VOL-I APPROVAL DATE: 02/17/04
 INITIAL DATE:
 ITEM NUMBER: GTY10.1G DATE LAST CHANGED: 02/26/04
 SECTION: 2750 TIME LAST CHANGED: 15:09:56

REQUESTER: GSFC JSC NASA HQ

CLASSIFICATION UNCLASSIFIED

INTERNATIONAL SPACE STATION ORBITAL VOL-I
PROGRAM REQUIREMENTS DOCUMENT/PROGRAM SUPPORT PLAN/
OPERATIONS REQUIREMENT/OPERATIONS DIRECTIVE (PRD/PSP/OR/OD)
PROGRAM NUMBER: 30000

SECTION 2750 - VOICE TERMINATIONS

PUBLICATION DATE: 05/31/96 REVISION: 0000 RUN DATE: 01/12/09

CONTINUED

[PRD] DATABASE RECORD: 575462
ITEM NUMBER: GTY10.1G

TEST CODE: CORE FULL-TIME

1. DESCRIPTION: ISS FD

RESPONSIBLY AGENCY: GSFC

REF	CAP	TERMINATION LOCATION	NOTE
Y1	M	EXTEND TO HQ	1
G2	M	EXTEND TO GSFC/NIC	
G3	M	EXTEND TO WSC	

NOTE 1. Voice loop will be extended to the Action Center for the ISS staff.

SUPPLIER: GSFC AGENCY: GSFC/451 (GODDARD SPACE FLIGHT CENTER)

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 02/26/04

[PRD] DATABASE RECORD: 575463 REQUIREMENT STATUS: APPROVED
DOCUMENT ID: ISS VOL-I APPROVAL DATE: 02/17/04
INITIAL DATE:
ITEM NUMBER: GTY11T DATE LAST CHANGED: 09/28/07
SECTION: 2750 TIME LAST CHANGED: 12:32:13

REQUESTER: GSFC JSC NASA HQ
TEST CODE: CORE FULL-TIME

1. DESCRIPTION: PAO MOSCOW

RESPONSIBLE AGENCY: JSC

REF	CAP	TERMINATION LOCATION	NOTE
T1	T/M	EXTEND TO GSFC	

SUPPLIER: JSC AGENCY: JSC/DD (JOHNSON SPACE CENTER)

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 02/17/04

CLASSIFICATION UNCLASSIFIED

INTERNATIONAL SPACE STATION ORBITAL VOL-I
PROGRAM REQUIREMENTS DOCUMENT/PROGRAM SUPPORT PLAN/
OPERATIONS REQUIREMENT/OPERATIONS DIRECTIVE (PRD/PSP/OR/OD)
PROGRAM NUMBER: 30000

SECTION 2750 - VOICE TERMINATIONS

PUBLICATION DATE: 05/31/96 REVISION: 0000 RUN DATE: 01/12/09

CONTINUED

[PRD] DATABASE RECORD: 575463
ITEM NUMBER: GTY11T

[PRD] DATABASE RECORD: 575464 REQUIREMENT STATUS: APPROVED
DOCUMENT ID: ISS VOL-I APPROVAL DATE: 02/17/04
INITIAL DATE:
ITEM NUMBER: GTY11.1G DATE LAST CHANGED: 02/26/04
SECTION: 2750 TIME LAST CHANGED: 15:10:46

REQUESTER: GSFC JSC NASA HQ
TEST CODE: CORE FULL-TIME

1. DESCRIPTION: PAO MOSCOW

RESPONSIBLE AGENCY: GSFC

REF	CAP	TERMINATION LOCATION	NOTE
Y1	T/M	EXTEND TO HQ	1
G2	M	EXTEND TO GSFC/NIC	

NOTE: 1. Voice loop will be extended to the Action Center for the ISS staff.

SUPPLIER: GSFC AGENCY: GSFC/451 (GODDARD SPACE FLIGHT CENTER)

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 02/26/04

[PRD] DATABASE RECORD: 575465 REQUIREMENT STATUS: APPROVED
DOCUMENT ID: ISS VOL-I APPROVAL DATE: 02/17/04
INITIAL DATE:
ITEM NUMBER: GTY12T DATE LAST CHANGED: 09/28/07
SECTION: 2750 TIME LAST CHANGED: 12:32:13

REQUESTER: GSFC JSC NASA HQ
TEST CODE: CORE FULL-TIME

1. DESCRIPTION: ISSP MANAGEMENT COORD

RESPONSIBLE AGENCY: JSC

REF	CAP	TERMINATION LOCATION	NOTE
-----	-----	----------------------	------

CLASSIFICATION UNCLASSIFIED

INTERNATIONAL SPACE STATION ORBITAL VOL-I
PROGRAM REQUIREMENTS DOCUMENT/PROGRAM SUPPORT PLAN/
OPERATIONS REQUIREMENT/OPERATIONS DIRECTIVE (PRD/PSP/OR/OD)
PROGRAM NUMBER: 30000

SECTION 2750 - VOICE TERMINATIONS

PUBLICATION DATE: 05/31/96 REVISION: 0000 RUN DATE: 01/12/09

CONTINUED

[PRD] DATABASE RECORD: 575465
ITEM NUMBER: GTY12T

---	---	-----	----
T1	T/M	EXTEND TO GSFC	

SUPPLIER: JSC AGENCY: JSC/DD (JOHNSON SPACE CENTER)

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 02/17/04

[PRD] DATABASE RECORD:	575466	REQUIREMENT STATUS:	APPROVED
DOCUMENT ID:	ISS VOL-I	APPROVAL DATE:	02/17/04
		INITIAL DATE:	
ITEM NUMBER:	GTY12.1G	DATE LAST CHANGED:	02/26/04
SECTION:	2750	TIME LAST CHANGED:	15:11:09

REQUESTER:	GSFC	JSC	NASA HQ
TEST CODE:	CORE	FULL-TIME	

1. DESCRIPTION: ISSP MANAGEMENT COORD

RESPONSIBLE AGENCY: GSFC

REF	CAP	TERMINATION LOCATION	NOTE
---	---	-----	----
Y1	T/M	EXTEND TO HQ	1

NOTE: 1. Voice loop will be extended to the Action Center for the ISS staff.

SUPPLIER: GSFC AGENCY: GSFC/451 (GODDARD SPACE FLIGHT CENTER)

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 02/26/04

[PRD] DATABASE RECORD:	575467	REQUIREMENT STATUS:	APPROVED
DOCUMENT ID:	ISS VOL-I	APPROVAL DATE:	02/17/04
		INITIAL DATE:	
ITEM NUMBER:	GHT13G	DATE LAST CHANGED:	02/26/04
SECTION:	2750	TIME LAST CHANGED:	15:11:32

REQUESTER:	GSFC	MSFC	JSC
TEST CODE:	CORE	FULL-TIME	

CLASSIFICATION UNCLASSIFIED

INTERNATIONAL SPACE STATION ORBITAL VOL-I
PROGRAM REQUIREMENTS DOCUMENT/PROGRAM SUPPORT PLAN/
OPERATIONS REQUIREMENT/OPERATIONS DIRECTIVE (PRD/PSP/OR/OD)
PROGRAM NUMBER: 30000

SECTION 2750 - VOICE TERMINATIONS

PUBLICATION DATE: 05/31/96 REVISION: 0000 RUN DATE: 01/12/09

CONTINUED

[PRD] DATABASE RECORD: 575467
ITEM NUMBER: GHT13G

1. DESCRIPTION: ISS TN COORD 1

RESPONSIBLE AGENCY: GSFC

REF	CAP	TERMINATION LOCATION	NOTE
T1	T/M	EXTEND TO JSC	
G2	T/M	EXTEND TO WSC	
G3	T/M	EXTEND TO NIC	
M4	T/M	EXTEND TO MSFC	

SUPPLIER: GSFC AGENCY: GSFC/451 (GODDARD SPACE FLIGHT CENTER)

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 02/26/04

[PRD] DATABASE RECORD: 575476 REQUIREMENT STATUS: APPROVED
DOCUMENT ID: ISS VOL-I APPROVAL DATE: 02/17/04
INITIAL DATE:
ITEM NUMBER: GHT13.1T DATE LAST CHANGED: 09/28/07
SECTION: 2750 TIME LAST CHANGED: 12:32:13

REQUESTER: GSFC MSFC JSC
TEST CODE: CORE FULL-TIME

1. DESCRIPTION: ISS TN COORD 1

RESPONSIBLE AGENCY: JSC

REF	CAP	TERMINATION LOCATION	NOTE
T1	T/M	EXTEND TO MCC	

SUPPLIER: JSC AGENCY: JSC/DD (JOHNSON SPACE CENTER)

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 02/17/04

CLASSIFICATION UNCLASSIFIED

INTERNATIONAL SPACE STATION ORBITAL VOL-I
PROGRAM REQUIREMENTS DOCUMENT/PROGRAM SUPPORT PLAN/
OPERATIONS REQUIREMENT/OPERATIONS DIRECTIVE (PRD/PSP/OR/OD)
PROGRAM NUMBER: 30000

SECTION 2750 - VOICE TERMINATIONS

PUBLICATION DATE: 05/31/96 REVISION: 0000 RUN DATE: 01/12/09

```
=====
[PRD] DATABASE RECORD: 575477 REQUIREMENT STATUS: APPROVED
DOCUMENT ID: ISS VOL-I APPROVAL DATE: 02/17/04
INITIAL DATE:
ITEM NUMBER: GHT13.2H DATE LAST CHANGED: 10/14/04
SECTION: 2750 TIME LAST CHANGED: 09:30:02

REQUESTER: GSFC MSFC JSC
TEST CODE: CORE FULL-TIME
```

1. DESCRIPTION: ISS TN COORD 1

RESPONSIBLE AGENCY: MSFC

REF	CAP	TERMINATION LOCATION	NOTE
---	---	-----	----
M1	T/M	EXTEND TO HOSC	

SUPPLIER: MSFC AGENCY: MSFC/EO60 (MARSHALL SPACE FLIGHT CENTER)

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 02/20/04

```
=====
[PRD] DATABASE RECORD: 561754 REQUIREMENT STATUS: APPROVED
DOCUMENT ID: ISS VOL-I APPROVAL DATE: 11/14/02
INITIAL DATE: 02/12/02
ITEM NUMBER: GHT15G DATE LAST CHANGED: 01/12/06
SECTION: 2750 TIME LAST CHANGED: 09:59:54

REQUESTER: GSFC MSFC JSC
TEST CODE: STSALL
```

ASSOCIATED DOC: FLT-I

1. DESCRIPTION: NISN COMM COORD

Responsible Agency: GSFC

REF	CAP	NOTE	TERMINATION LOCATION
---	---	----	-----
T1	T/M	1	Extend to JSC
H2	T/M	1	Extend to MSFC
G3	T/M	1	Distribute to GSFC NISN internal areas

NOTE 1: Orderwire between JSC OST, GSFC COMM MGR, and MSFC NISN (ENMC)

CLASSIFICATION UNCLASSIFIED

INTERNATIONAL SPACE STATION ORBITAL VOL-I
PROGRAM REQUIREMENTS DOCUMENT/PROGRAM SUPPORT PLAN/
OPERATIONS REQUIREMENT/OPERATIONS DIRECTIVE (PRD/PSP/OR/OD)
PROGRAM NUMBER: 30000

SECTION 2750 - VOICE TERMINATIONS

PUBLICATION DATE: 05/31/96 REVISION: 0000 RUN DATE: 01/12/09

CONTINUED

[PRD] DATABASE RECORD: 561754
ITEM NUMBER: GHT15G

and Russian Services Engineering Group (RSEG)for all NISN related voice
data issues.

REF: FLT VOL I: ITEM GHT157G SECTION 2750 DBR 567701

SUPPLIER: GSFC AGENCY: GSFC/450 (GODDARD SPACE FLIGHT CENTER)

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 11/22/02

[PRD] DATABASE RECORD: 557096 REQUIREMENT STATUS: APPROVED
DOCUMENT ID: ISS VOL-I APPROVAL DATE: 11/14/02
INITIAL DATE: 09/25/00
ITEM NUMBER: GHT15.1T DATE LAST CHANGED: 09/28/07
SECTION: 2750 TIME LAST CHANGED: 12:32:13

REQUESTER: GSFC MSFC JSC
TEST CODE: CORE FULL-TIME

ASSOCIATED DOC: FLT-I

1. DESCRIPTION: NISN COMM COORD

Responsible Agency: JSC

REF	CAP	NOTE	TERMINATION LOCATION
T1	T/M	1	MCC DISTRIBUTION

NOTE: 1. Orderwire between JSC OST, GSFC COMM MANAGER, and MSFC NISN
Service Group for all NISN related voice and data issues.

REF: FLT VOL-I ITEM GHT157.1T SECTION FLS2750 DBR 557526

SUPPLIER: JSC AGENCY: JSC/DD (JOHNSON SPACE CENTER)

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 11/14/02

CLASSIFICATION UNCLASSIFIED

INTERNATIONAL SPACE STATION ORBITAL VOL-I
PROGRAM REQUIREMENTS DOCUMENT/PROGRAM SUPPORT PLAN/
OPERATIONS REQUIREMENT/OPERATIONS DIRECTIVE (PRD/PSP/OR/OD)
PROGRAM NUMBER: 30000

SECTION 2750 - VOICE TERMINATIONS

PUBLICATION DATE: 05/31/96 REVISION: 0000 RUN DATE: 01/12/09

=====

[PRD] DATABASE RECORD:	561755	REQUIREMENT STATUS:	APPROVED
DOCUMENT ID:	ISS VOL-I	APPROVAL DATE:	03/27/02
		INITIAL DATE:	02/12/02
ITEM NUMBER:	GHT15.2H	DATE LAST CHANGED:	01/12/06
SECTION:	2750	TIME LAST CHANGED:	14:45:57

REQUESTER:	GSFC	MSFC	JSC
TEST CODE:	CORE	FULL-TIME	

ASSOCIATED DOC: FLT-I

1. DESCRIPTION: NISN COMM COORD

Responsible Agency: MSFC

REF	CAP	NOTE	TERMINATION LOCATION
---	---	----	-----
H1	T/M	1	Distribution to MSFC ENMC/RSEG
H2	T/M	2	Distribution to MSFC HOSC

NOTE 1: Orderwire between JSC OST, GSFC COMM MGR, and MSFC NISN (ENMC) and Russian Services Engineering Group (RSEG) for all NISN related voice and data issues.

NOTE 2: Used for NISN voice and data communications issues between GSFC COMM MGR, JSC OST, MSFC IST, and others as required.

REF: FLT VOL-I ITEM GHT157.2H SECTION 2750 DBR 567703

SUPPLIER: MSFC AGENCY: MSFC/EO60 (MARSHALL SPACE FLIGHT CENTER)

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 03/27/02

=====

[PRD] DATABASE RECORD:	575468	REQUIREMENT STATUS:	APPROVED
DOCUMENT ID:	ISS VOL-I	APPROVAL DATE:	04/06/04
		INITIAL DATE:	
ITEM NUMBER:	TY17.1G	DATE LAST CHANGED:	01/12/06
SECTION:	2750	TIME LAST CHANGED:	14:46:36

CLASSIFICATION UNCLASSIFIED

INTERNATIONAL SPACE STATION ORBITAL VOL-I
PROGRAM REQUIREMENTS DOCUMENT/PROGRAM SUPPORT PLAN/
OPERATIONS REQUIREMENT/OPERATIONS DIRECTIVE (PRD/PSP/OR/OD)
PROGRAM NUMBER: 30000

SECTION 2750 - VOICE TERMINATIONS

PUBLICATION DATE: 05/31/96 REVISION: 0000 RUN DATE: 01/12/09

CONTINUED

[PRD] DATABASE RECORD: 575468
ITEM NUMBER: TY17.1G

REQUESTER: JSC NASA HQ
TEST CODE: CORE FULL-TIME

1. DESCRIPTION: RS ISS VHF 1

RESPONSIBLE AGENCY: GSFC

REF	CAP	TERMINATION LOCATION	NOTE
T1	T/M	EXTEND TO DFRC	
T2	T/M	EXTEND TO WLP	
T3	T/M	EXTEND TO WSC	
Y4	M	EXTEND TO HQ	1

NOTE: Voice loop will be extended to the Action Center for the ISS staff.

SUPPLIER: GSFC AGENCY: GSFC/451 (GODDARD SPACE FLIGHT CENTER)

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 04/29/04

[PRD] DATABASE RECORD: 558796 REQUIREMENT STATUS: APPROVED
DOCUMENT ID: ISS VOL-I APPROVAL DATE: 02/11/02
INITIAL DATE: 03/29/01
ITEM NUMBER: GHT21G DATE LAST CHANGED: 01/12/06
SECTION: 2750 TIME LAST CHANGED: 14:51:05

REQUESTER: GSFC MSFC JSC
TEST CODE: CORE FULL-TIME

1. DESCRIPTION: WSC PLAYBACK COORD

Responsible Agency: GSFC

REF	CAP	TERMINATION LOCATION	NOTE
T1	T/M	EXTEND TO JSC	1
H2	T/M	EXTEND TO MSFC	1
G3	T/M	EXTEND TO WSC	1

CLASSIFICATION UNCLASSIFIED

INTERNATIONAL SPACE STATION ORBITAL VOL-I
PROGRAM REQUIREMENTS DOCUMENT/PROGRAM SUPPORT PLAN/
OPERATIONS REQUIREMENT/OPERATIONS DIRECTIVE (PRD/PSP/OR/OD)
PROGRAM NUMBER: 30000

SECTION 2750 - VOICE TERMINATIONS

PUBLICATION DATE: 05/31/96 REVISION: 0000 RUN DATE: 01/12/09

CONTINUED

[PRD] DATABASE RECORD: 558796
ITEM NUMBER: GHT21G

NOTE 1: This circuit will be used for all Shuttle and Station Playbacks.

REF: FLT VOL-I ITEM GHT158G SECTION 2750 DBR 558795

SUPPLIER: GSFC AGENCY: GSFC/450 (GODDARD SPACE FLIGHT CENTER)

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 10/03/02

[PRD] DATABASE RECORD: 561724 REQUIREMENT STATUS: APPROVED
DOCUMENT ID: ISS VOL-I APPROVAL DATE: 02/11/02
INITIAL DATE: 02/11/02
ITEM NUMBER: GHT21.1T DATE LAST CHANGED: 01/12/06
SECTION: 2750 TIME LAST CHANGED: 14:51:52

REQUESTER: GSFC MSFC JSC
TEST CODE: CORE FULL-TIME

1. DESCRIPTION: WSC PLAYBACK COORD

Responsible Agency: JSC

REF:	CAP	TERMINATION LOCATION	NOTE
---	---	-----	----
T1	T/M	Telcom consoles	1

NOTE 1: This circuit will be used for all Shuttle and Station Playbacks.

REF: FLT VOL-I ITEM GHT13.1T SECTION 2750 DBR 567706

SUPPLIER: JSC AGENCY: JSC/DB (T - JOHNSON SPACE CENTER)

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 02/11/02

CLASSIFICATION UNCLASSIFIED

INTERNATIONAL SPACE STATION ORBITAL VOL-I
PROGRAM REQUIREMENTS DOCUMENT/PROGRAM SUPPORT PLAN/
OPERATIONS REQUIREMENT/OPERATIONS DIRECTIVE (PRD/PSP/OR/OD)
PROGRAM NUMBER: 30000

SECTION 2750 - VOICE TERMINATIONS

PUBLICATION DATE: 05/31/96 REVISION: 0000 RUN DATE: 01/12/09

CONTINUED

[PRD] DATABASE RECORD: 561724
ITEM NUMBER: GHT21.1T

[PRD] DATABASE RECORD: 561725 REQUIREMENT STATUS: APPROVED
DOCUMENT ID: ISS VOL-I APPROVAL DATE: 02/02/02
INITIAL DATE: 02/11/02
ITEM NUMBER: GHT21.2H DATE LAST CHANGED: 01/12/06
SECTION: 2750 TIME LAST CHANGED: 14:53:04

REQUESTER: GSFC MSFC JSC
TEST CODE: CORE FULL-TIME

1. DESCRIPTION: WSC PLAYBACK COORD

Responsible Agency: MSFC

REF:	CAP	TERMINATION LOCATION	NOTE
----	---	-----	----
H1	T/M	MSFC local distribution	1

NOTE 1: This circuit will be used for all Shuttle and Station Playbacks.

REF: FLT VOL-I ITEM GHT13.2H SECTION 2750 DBR 567707

SUPPLIER: MSFC AGENCY: MSFC/EO60 (MARSHALL SPACE FLIGHT CENTER)

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 03/27/02

[PRD] DATABASE RECORD: 576237 REQUIREMENT STATUS: APPROVED
DOCUMENT ID: ISS VOL-I APPROVAL DATE: 04/06/04
INITIAL DATE:
ITEM NUMBER: Y22T DATE LAST CHANGED: 09/28/07
SECTION: 2750 TIME LAST CHANGED: 12:32:13

REQUESTER: NASA HQ
TEST CODE: CORE FULL-TIME

1. DESCRIPTION: 1 S/G 1

RESPONSIBLE AGENCY: JSC

CLASSIFICATION UNCLASSIFIED

INTERNATIONAL SPACE STATION ORBITAL VOL-I
PROGRAM REQUIREMENTS DOCUMENT/PROGRAM SUPPORT PLAN/
OPERATIONS REQUIREMENT/OPERATIONS DIRECTIVE (PRD/PSP/OR/OD)
PROGRAM NUMBER: 30000

SECTION 2750 - VOICE TERMINATIONS

PUBLICATION DATE: 05/31/96 REVISION: 0000 RUN DATE: 01/12/09

CONTINUED

[PRD] DATABASE RECORD: 576237
ITEM NUMBER: Y22T

REF	CAP	TERINATION LOCATION	NOTE
---	---	-----	----
Y1	M	EXTEND TO GSFC	

SUPPLIER: JSC AGENCY: JSC/DD (JOHNSON SPACE CENTER)

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 04/07/04

[PRD] DATABASE RECORD:	576238	REQUIREMENT STATUS:	APPROVED
DOCUMENT ID:	ISS VOL-I	APPROVAL DATE:	04/06/04
		INITIAL DATE:	
ITEM NUMBER:	Y22.1G	DATE LAST CHANGED:	01/12/06
SECTION:	2750	TIME LAST CHANGED:	14:54:31

REQUESTER: NASA HQ
TEST CODE: CORE FULL-TIME

1. DESCRIPTION: 1 S/G 1

RESPONSIBLE AGENCY: GSFC

REF	CAP	TERMINATION LOCATION	NOTE
---	---	-----	----
Y1	M	EXTEND TO HQ	1

NOTE: Voice loop will be extended to the Action Center for the ISS staff.

SUPPLIER: GSFC AGENCY: GSFC/451 (GODDARD SPACE FLIGHT CENTER)

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 04/29/04

[PRD] DATABASE RECORD:	576239	REQUIREMENT STATUS:	APPROVED
DOCUMENT ID:	ISS VOL-I	APPROVAL DATE:	04/06/04
		INITIAL DATE:	
ITEM NUMBER:	Y23T	DATE LAST CHANGED:	09/28/07
SECTION:	2750	TIME LAST CHANGED:	12:32:13

REQUESTER: NASA HQ
TEST CODE: CORE FULL-TIME

CLASSIFICATION UNCLASSIFIED

INTERNATIONAL SPACE STATION ORBITAL VOL-I
PROGRAM REQUIREMENTS DOCUMENT/PROGRAM SUPPORT PLAN/
OPERATIONS REQUIREMENT/OPERATIONS DIRECTIVE (PRD/PSP/OR/OD)
PROGRAM NUMBER: 30000

SECTION 2750 - VOICE TERMINATIONS

PUBLICATION DATE: 05/31/96 REVISION: 0000 RUN DATE: 01/12/09

CONTINUED

[PRD] DATABASE RECORD: 576239
ITEM NUMBER: Y23T

1. DESCRIPTION: 1 S/G 2

RESPONSIBLE AGENCY: JSC

REF	CAP	TERMINATION LOCATION	NOTE
---	---	-----	----
Y1	M	EXTEND TO GSFC	

SUPPLIER: JSC AGENCY: JSC/DD (JOHNSON SPACE CENTER)

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 04/07/04

[PRD] DATABASE RECORD:	576240	REQUIREMENT STATUS:	APPROVED
DOCUMENT ID:	ISS VOL-I	APPROVAL DATE:	04/06/04
		INITIAL DATE:	
ITEM NUMBER:	Y23.1G	DATE LAST CHANGED:	01/12/06
SECTION:	2750	TIME LAST CHANGED:	14:59:28

REQUESTER: NASA HQ
TEST CODE: CORE FULL-TIME

1. DESCRIPTION: 1 S/G 2

RESPONSIBLE AGENCY: GSFC

REF	CAP	TERMINATION LOCATION	NOTE
---	---	-----	----
Y1	M	EXTEND TO HQ	1

NOTE: Voice loop will be extended to the Action Center for the ISS staff.

SUPPLIER: GSFC AGENCY: GSFC/451 (GODDARD SPACE FLIGHT CENTER)

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 04/29/04

CLASSIFICATION UNCLASSIFIED

INTERNATIONAL SPACE STATION ORBITAL VOL-I
PROGRAM REQUIREMENTS DOCUMENT/PROGRAM SUPPORT PLAN/
OPERATIONS REQUIREMENT/OPERATIONS DIRECTIVE (PRD/PSP/OR/OD)
PROGRAM NUMBER: 30000

SECTION 2750 - VOICE TERMINATIONS

PUBLICATION DATE: 05/31/96 REVISION: 0000 RUN DATE: 01/12/09

```
=====
[PRD] DATABASE RECORD: 576241 REQUIREMENT STATUS: APPROVED
DOCUMENT ID: ISS VOL-I APPROVAL DATE: 04/06/04
INITIAL DATE:
ITEM NUMBER: Y24T DATE LAST CHANGED: 09/28/07
SECTION: 2750 TIME LAST CHANGED: 12:32:13

REQUESTER: NASA HQ
TEST CODE: CORE FULL-TIME
```

1. DESCRIPTION: TRANSLATE RUSSIAN TO ENGLISH

RESPONSIBLE AGENCY: JSC

REF	CAP	TERMINATION LOCATION	NOTE
---	---	-----	----
Y1	M	EXTEND TO GSFC	

SUPPLIER: JSC AGENCY: JSC/DD (JOHNSON SPACE CENTER)

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 04/07/04

```
-----
[PRD] DATABASE RECORD: 576242 REQUIREMENT STATUS: APPROVED
DOCUMENT ID: ISS VOL-I APPROVAL DATE: 04/06/04
INITIAL DATE:
ITEM NUMBER: Y24.1G DATE LAST CHANGED: 01/12/06
SECTION: 2750 TIME LAST CHANGED: 15:00:30

REQUESTER: NASA HQ
TEST CODE: CORE FULL-TIME
```

1. DESCRIPTION: TRANSLATE RUSSIAN TO ENGLISH

RESPONSIBLE AGENCY: GSFC

REF	CAP	TERMINATION LOCATION	NOTE
---	---	-----	----
Y1	M	EXTEND TO HQ	1

NOTE: Voice loop will be extended to the Action Center for the ISS staff.

SUPPLIER: GSFC AGENCY: GSFC/451 (GODDARD SPACE FLIGHT CENTER)

SUPPLIER COMMITMENT: WILCO RESPONSE DATE: 04/29/04

CLASSIFICATION UNCLASSIFIED

INTERNATIONAL SPACE STATION ORBITAL VOL-I
PROGRAM REQUIREMENTS DOCUMENT/PROGRAM SUPPORT PLAN/
OPERATIONS REQUIREMENT/OPERATIONS DIRECTIVE (PRD/PSP/OR/OD)
PROGRAM NUMBER: 30000

SECTION 2750 - VOICE TERMINATIONS

PUBLICATION DATE: 05/31/96 REVISION: 0000 RUN DATE: 01/12/09

=====
CONTINUED

[PRD] DATABASE RECORD: 576242
ITEM NUMBER: Y24.1G

THIS REPORT CONTAINS 23 PAGES

REPORT BY: FORM=06 DOC=ISS VOL-I REQ= GYS

P1030=N